

REMARKS

Claims 1-26 and 28-30 will be pending upon entry of the present amendment. Claims 1, 9, 10, 13, 19-21, 25, 26, 28, and 29 are amended, and claims 27 and 31-33 are cancelled. No new matter is added by the present amendment.

Claims 1, 10, 13, and 21 have been amended to incorporate the limitations, respectively, of dependent claims 31, 27, 32, and 33. Claims 25, 26, 28, and 29 have been rewritten in independent form, incorporating all of the limitations of their respective base claims. None of these amendments add previously unclaimed subject matter or otherwise necessitate further searching. Applicants therefore respectfully request entry of the present amendment and consideration of the currently pending claims.

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 1-31 and 33 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which the applicant regards as his invention. In particular, the Examiner indicates that:

... the claims do not recite that the multidirectional inertial device is an internal component of the (portable) electronic apparatus, that the electronic apparatus enters standby after a period of inactivity, and that the multidirectional inertial device outputs a signal to reactivate the electronic apparatus from standby.

The specification (figures 3, 5, page 10, lines 8-16) shows that a signal (R) is sent to the electronic apparatus in order to activate the apparatus from standby. Claims 1-31 and 33, in various configurations, only recite that the inertial device recognizes an acceleration event, and either 1) sends a recognition signal to its output (where the signal path abruptly ends), or 2) reactivates the inertial device (which is already on). This signal is never made available to a standby electronic apparatus (portable or not).

Office Action mailed October 16, 2008 (hereafter *Office Action*), page 5.

Applicants respectfully traverse the rejection of claims 1-31 and 33 under 35 U.S.C. § 112, second paragraph. As best understood, the Examiner's basis for the rejection is that, because the claims do not recite all of the elements disclosed in the specification that the

Examiner regards as being essential to the operation of a device on which the claims read, they are indefinite. This has never been the standard under 35 U.S.C. § 112.

“Only when a claim remains insolubly ambiguous without a discernible meaning after all reasonable attempts at construction must a court declare it indefinite.” *Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1366, 71 U.S.P.Q.2d 1081, 1089 (2004). “A decision on whether a claim is invalid under 35 U.S.C. 112, second paragraph, requires a determination of whether those skilled in the art would understand what is claimed when the claim is read in light of the specification.” *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576, 1 U.S.P.Q.2d 1081, 1088 (Fed. Cir. 1986).

The Examiner has incorrectly applied § 112 in the rejection of claims 1-31 and 33. The case law is clear that a claim should be rejected under 35 U.S.C. § 112, second paragraph only if the meaning of the claim is insolubly ambiguous, in light of the specification. The Examiner has not argued that the language of any of the claims is ambiguous, but only that they do not recite all of the elements of the claimed invention.

The Examiner has certainly understood the meaning of the claims. In support of the rejection, as quoted above, the Examiner briefly describes the operation of an apparatus that is disclosed in the specification, and also describes elements of the apparatus that are not recited in the claims. In doing so, the Examiner demonstrates a clear understanding of the meaning of the language of the claims. The Examiner clearly did not find the claim “insolubly ambiguous,” or “without a discernible meaning.”

As explained in the MPEP, § 2172, “[t]he content of applicant's specification is not used as evidence that the scope of the claims is inconsistent with the subject matter which applicants regard as their invention. [A]greement, or lack thereof, between the claims and the specification ... is irrelevant to compliance with the second paragraph of [§ 112].” (Citing *In re Ehrreich*, 590 F.2d 902, 200 USPQ 504 (1979).)

So long as the claims are “definite enough to provide a clear-cut indication of the scope of subject matter embraced by the claim[s],” which they are, in view of the Examiner’s own statements, and are not so broad as to cause the claims “to have a potential scope of

protection beyond that which is justified by the specification disclosure,”¹ which has not been argued by the Examiner, claims 1-31 and 33 are allowable over 35 U.S.C. § 112, second paragraph. Applicants therefore request withdrawal of the rejection.

Objections to claims

Claim 9 is objected to as reciting, at line 2, “a device for reactivation from standby,” and, at line 4, “the device for reactivation for standby.” Claim 9 is amended to correct this inconsistency in language.

Claims 19-20 are objected to as being inconsistent with the language of their base claim 13. Claims 19 and 20 are amended to clarify their scope.

Summary of Rejections Under 35 U.S.C. §§ 102 and 103

Claims 1-5, 9-15, 17, 18, and 21-30 are rejected under 35 U.S.C. §103(a) as being unpatentable over Woehrl et al. (U.S. 5,173,614, hereafter *Woehrl*); claims 6-8 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Woehrl, in view of Oguchi (U.S. Pub. 2002/0033047); and claims 19 and 20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Woehrl, in view of Ishiyama (U.S. Patent 6,738,214).

In the responses that follow, when citing to a specific passage of a U.S. patent, a column number will be separated from a line number by a colon, e.g., 4:22, indicating column 4, line 22.

Response to Rejections Under 35 U.S.C. §§102 & 103

As currently presented, claim 1 includes the limitations of previously presented claim 31, and recites, in part, “[a] multidirectional inertial device ..., comprising: ... an output terminal of the multidirectional inertial device, and wherein the first and second comparison

¹ See, e.g., *In re Swinehart*, 439 F.2d 210, 213, 169 U.S.P.Q. 226 (1971) (“there are in reality only two basic grounds for rejecting a claim under § 112. The first is that the language used is not precise and definite enough to provide a clear-cut indication of the scope of subject matter embraced by the claim. ... The second is that the language is so broad that it causes the claim to have a potential scope of protection beyond that which is justified by the specification disclosure.”).

means are each configured to supply the first recognition signal at the output terminal.” Woehrl fails to teach or suggest this limitation of claim 1. In rejecting this limitation, the Examiner argues that “it would be obvious to label the output of logic gate (44) [as] the output of the inertial device.” (Office Action, page 10, penultimate paragraph.) Applicants respectfully disagree. While it may be true that the various logic gates of Woehrl’s triggering apparatus include respective output terminals, and each is part of the overall apparatus, one of ordinary skill would not label some or all of them as “the output” of the apparatus because of the significant confusion this would engender. Instead, each would be labeled according to the respective component.

Thus, for example, the output terminal of the logic gate 44 would be labeled exactly that. Applicants note that had the Examiner not specifically referred to that terminal as “the output of logic gate (44)” in the Office Action, it would have been impossible for a reader to know that the Examiner was referring to that specific connection terminal within the apparatus. For the same reason, as is very well known in the art, it is the accepted convention to label terminals according to the specific device that they serve. Thus, for example, one of ordinary skill would recognize a reference to the “output terminal” of Woehrl’s triggering apparatus as being directed to the terminal at which the trigger signal TS is supplied, just as the Examiner’s reference to “‘the output’ of logic gate (44)” was recognized by the Applicants as being directed to the point where line L3 is coupled to logic gate 44, as shown in Woehrl’s Figure 2B, and not, for example, to any of the output terminals of the transistors that a logic gate such as gate 44 inherently comprises. To do otherwise would create considerable confusion, and could make it impossible to adequately describe or define even a moderately complex device.

Thus, one of ordinary skill in the art would not find it obvious to label the output of logic gate 44 as the output of Woehrl’s triggering apparatus, and would also recognize that the “output terminal of the multidirectional inertial device,” as recited in claim 1, refers to the output of the overall “multidirectional inertial device,” and not to the output of some internal component thereof.

With regard to the signal provided, claim 1 refers to a “recognition signal,” which was defined in Applicants’ previous response as a “signal that operates to trigger some action in another device.” The Examiner disagreed with this definition, arguing that,

... this signal would be generated in response to an event. To recognize an event is to be aware of it after it has happened. It does not indicate creating, generating or activating a future event. The ordinary meaning of the word recognize does not indicate anything that has to do with operating or triggering some action in another device.

Office Action, page 2.

While Applicants agree that the term “recognition signal” would suggest a signal supplied in response to an event, they disagree that it cannot also act as a triggering signal, and therefore disagree with the Examiner’s conclusion. Referring to page 8, lines 13-25, the specification describes how the recognition signal is set at the first logic value in response to various combinations of acceleration signals. Thus, the recognition disclosed in the specification is produced as a response to an event, as the Examiner argues would be appropriate. However, once produced, the recognition signal serves to trigger an action, as disclosed at page 10, lines 8-16 of the specification, which states that,

a portable electronic apparatus 30 (here a cell phone) incorporating the inertial device 10 according to the invention can be automatically brought back into the active state as soon as a movement is detected, *i.e.*, when the recognition signal R is brought to the first logic value (for example, when the apparatus is picked up by a user).

Thus, one of ordinary skill would recognize that a “recognition signal” as the term is used in the specification and claims, is not limited to simply indicating a response, but can also serve as a triggering signal.

For the reasons outlined above, Woehrl fails to teach or suggest all of the limitations of claim 1, which is therefore allowable.

Claim 9 recites, in part, “an output terminal of the device for reactivation from standby; ... first comparison means, ... supplying a reactivation signal at the output terminal when only a first one of said acceleration signals is greater than a respective upper threshold, and supplying the reactivation signal at the output terminal when only a second one of said acceleration signals is greater than a respective upper threshold; and second comparison

means, ... for supplying said reactivation signal at the output terminal when any two of said acceleration signals are each greater than a respective lower threshold” Claim 9 is allowable for reasons similar to those put forth in support of the allowability of claim 1. In particular, Woehrl fails to teach or suggest supplying the reactivation signal at the output terminal of the device for reactivation from standby.

The Examiner argues that,

[a]ccording to the language of the claim, the ‘device for reactivation from standby’ is not the portable electronic apparatus. ... The portable electronic apparatus is the overall structure which comprises the inertial device. The claim does not positively recite that the apparatus enters standby and requires the inertial device to reactivate it.

Office Action, page 3.

Applicants do not disagree with this argument, but do not believe that it affects the allowability of the claim, which is allowable because Woehrl fails to teach or suggest all of the limitations that are positively recited.

Claim 10 recites, in part, “generating a plurality of acceleration signals, each of which is correlated to an **absolute value** of an acceleration parallel to a respective preferential detection axis; supplying a first recognition signal at an output terminal when only a first one of said acceleration signals is greater than a respective upper threshold; supplying the first recognition signal at the output terminal when only a second one of said acceleration signals is greater than a respective upper threshold; and supplying the first recognition signal at the output terminal when any two of said acceleration signals are each greater than a respective lower threshold” Woehrl fails to teach or suggest this limitation of claim 10. As is well known in the art, the term “absolute value” refers to a value that is considered without reference to its polarity. Thus, for example, the sum of the absolute values of negative 2 and 3 is equal to the sum of the absolute values of 2 and negative 3: $(|-2| + |3| = |2| + |-3|)$.

Woehrl specifically distinguishes between positive and negative acceleration signals so as to “prevent the activation of the safety device in response to a rear impact (Woehrl, 7:52-54). This is accomplished, in part, by deducting a reference value Sa3 from the output of the signal limiters 9 (at summing circuit 10) before further processing the signals and providing

results at the logic gate 44 (5:15-22 and 7:24-49, and Figures 2A, 2B). Deducting a value from the signals ensures that only relatively strong forward impacts can exceed the values of the threshold switches 41 and 51. One of ordinary skill in the art will recognize that no negative value signals, such as would result from a rear impact (see, e.g., 7:57-58), will be detected by this device, and that the output of the logic gate 44, as well as that of the triggering device, is controlled to respond only to positive value signals.

The Examiner argues that "in forward impacts, the absolute value of the acceleration signals are compared to first and second thresholds." Applicants strongly disagree. This argument is substantially the same as arguing "the absolute values of all positive signals are compared to first and second thresholds." The fact that the signals from forward impacts are positive, and therefore are considered in the comparison process is not the same as comparing an absolute value of a signal. If an acceleration signal is filtered to remove a negative component, or is compared against a positive threshold, only, in a way that eliminates not only the positive signals that are below the threshold, but also all negative signals (as in the case of Woehrl), such a process does not make a comparison based on an absolute value of the signal. In a process in which the absolute value of a signal is compared, a negative value of a given magnitude will be treated identically with a positive value of the same magnitude. Woehrl does not do this, and therefore fails to teach or suggest all of the limitations of claim 10, which is thus allowable.

Claim 25 recites, in part, "first comparison means ... supplying a first recognition signal when an absolute value of only a first one of said acceleration signals is greater than the respective upper threshold"

Claim 26 recites, in part, "transduction means ... supplying a plurality of acceleration signals, each of which is correlated to an absolute value of an acceleration parallel to a respective one of said preferential detection axes"

Claim 28 recites, in part, "a comparator circuit for each of the detection axes, configured to compare an absolute value of the respective dynamic acceleration signal with respective higher and lower threshold signals"

Claim 29 recites, in part, “producing the first recognition signal if an absolute value of the level of the acceleration with respect to any one of the plurality of axes exceeds the high threshold”

As explained in detail with respect to claim 10, Woehrl distinguishes between positive and negative value acceleration signals, and produces results that are differentiated accordingly. Therefore, claims 25, 26, 28, and 29 are each allowable over Woehrl.

Claim 13 recites, in part, “a portable electronic apparatus configured to go into stand-by after a period of inactivity and to return to an active state when a first recognition signal is produced at an output terminal, including: an acceleration circuit ...; a comparator circuit ...; and a logic circuit configured to produce a first recognition signal at the output terminal”

Woehrl fails to teach or suggest these limitations of claim 13. In rejecting claim 13, the Examiner argues that, with regard to Woehrl’s device, “[w]hen no acceleration is detected, the output of logic gate (44) is LOW, and therefore, the inertial device is off (standby). After an acceleration event, the logic gate outputs HIGH, and the inertial device (and the apparatus that includes the device) is reactivated.” Applicants strongly disagree. One of ordinary skill in the art would not find that any part of Woehrl’s device is “off” if the output of the logic gate 44 is low. All components continue to draw power, and to operate as designed. Just because the device does not produce a trigger signal does not mean the device is in “standby,” as argued by the Examiner. The output of the logic gate 44 is only one of several signals that operate to produce a trigger signal, and the logic circuits that produce the other signals operate independently of the logic gate 44, and do not go into standby if the logic gate output is low. With regard to the airbag circuit that is triggered by Woehrl’s device, a high value at the output of the logic gate 44, *per se*, does not produce a trigger signal at the output of Woehrl’s device. Instead, appropriate signals from dozens of other logic devices are required to produce a trigger signal at the and gate 83. So, while a high logic value at logic gate 44 is required for a trigger signal to be produced, the trigger signal is not produced any time the logic gate 44 produces such a value.

Furthermore, the Examiner has not pointed to any part of Woehrl's device that corresponds to "a portable electronic apparatus configured to go into stand-by after a period of inactivity and to return to an active state when a first recognition signal is produced at an output terminal," as recited in claim 13. Woehrl is directed to a device for triggering the airbags of a vehicle. Even if the airbag circuit could be considered as being analogous to the "portable electronic apparatus," such devices are "one-shot" components. Once activated, they do not go into standby after a period of inactivity, but instead, cease operation once the firing process is complete, and cannot "return to an active state," regardless of what signal is produced. Accordingly, claim 13 is allowable over Woehrl.

Claim 21 recites, in part, "deactivating the device to a stand-by status in response to a period of inactivity of the device; ... and reactivating the device from the stand-by status when the recognition signal is produced." Claim 21 is allowable for many of the same reasons adduced in support of claim 13. In particular, Woehrl fails to teach or suggest the limitations quoted above.

Conclusion

Overall, the cited references do not singly, or in any motivated combination, teach or suggest the claimed features of the embodiments recited in independent claims 1, 9, 10, 13, 21, 25, 26, 28, or 29, and thus such claims are allowable. If the undersigned representative has overlooked a relevant teaching in any of the references, the Examiner is requested to point out specifically where such teaching may be found.

In light of the above amendments and remarks, Applicants respectfully submit that all pending claims are allowable, and therefore request that the Examiner reconsider this application and timely allow all pending claims. Examiner Amrany is encouraged to contact Mr. Bennett by telephone at (206) 694-4848 to discuss the above and any other distinctions between the claims and the applied references, and to address any informalities that may remain unresolved.

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The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,
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